

# 1998 Toxics Release Inventory

## **FLORIDA**

#### Reported Releases and Waste Management Activities (in pounds)

|   | Original Industries | New Industries | Total         |
|---|---------------------|----------------|---------------|
| On-site Releases                                    | 75,991,454          | 66,458,514     | 142,449,968   |
| Air Emissions                                       | 31,915,108          | 57,951,225     | 89,866,333    |
| Surface Water Discharges                            | 2,049,041           | 67,885         | 2,116,926     |
| Underground Injection Class I Wells                 | 27,473,112          | 0              | 27,473,112    |
| Underground Injection Class II-V Wells              | 0                   | 0              | 0             |
| On-site Land Releases to RCRA Subtitle C Landfills  | 2,064               | 934,073        | 936,137       |
| Other On-site Land Releases                         | 14,552,129          | 7,505,331      | 22,057,460    |
| Off-site Releases (Transfers Off-site to Disposal)* | 1,953,909           | 2,546,351      | 4,500,260     |
| Total On- and Off-site Releases                     | 77,945,363          | 69,004,865     | 146,950,228   |
| Recycled On-site                                    | 706,626,708         | 1,587,979      | 708,214,687   |
| Recycled Off-site                                   | 21,487,365          | 228,435        | 21,715,800    |
| Energy Recovery On-site                             | 15,126,614          | 0              | 15,126,614    |
| Energy Recovery Off-site                            | 3,637,599           | 773,108        | 4,410,707     |
| Treated On-site                                     | 108,998,283         | 26,051,279     | 135,049,562   |
| Treated Off-site**                                  | 9,037,205           | 27,064         | 9,064,269     |
| Quantity Released On- and Off-site ***              | 76,662,033          | 67,976,711     | 144,638,744   |
| Total Production-related Waste Managed              | 941,575,807         | 96,644,576     | 1,038,220,383 |
| Total Non-production-related Waste Managed          | 50,634              | 11,675         | 62,309        |

#### Transfers Off-site for Further Waste Management/Disposal

|  | -0         |           |            |
|--|------------|-----------|------------|
| Recycling  | 21,224,905 | 230,810   | 21,455,715 |
| Energy Recovery  | 3,791,221  | 768,279   | 4,559,500  |
| Treatment  | 3,016,883  | 88,154    | 3,105,037  |
| Publicly Owned Treatment Works (POTWs)                         | 6,306,199  | 756       | 6,306,955  |
| Metals and Metal Compounds*                                    | 13,659     | 14        | 13,673     |
| Non-metal TRI Chemicals**                                      | 6,292,540  | 742       | 6,293,282  |
| Other Off-site Transfers****                                   | 0          | 0         | 0          |
| Off-site Transfers to Disposal (not including metals to POTWs) | 2,494,469  | 2,546,337 | 5,040,806  |
| Total Transfers Off-site for Further                           | 36,833,677 | 3,634,336 | 40,468,013 |
| Waste Management/Disposal                                      |            |           |            |

- \* Transfers to POTWs of metals and metal compounds are included in off-site releases. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.
- \*\* Transfers to POTWs of non-metals are included in treated off-site waste management activity.
- \*\*\* Excludes non-production-related releases; e.g. releases due to catastrophic events or remedial actions.
- \*\*\*\*Transfers reported without a valid waste management code.

#### For More Information . . .

 State Contact:
 EPA Regional Contact:

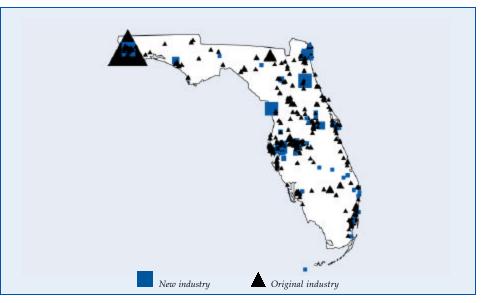
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To obtain TRI data use assistance, call TRI User Support Service (TRI-US):

(202) 260-1531 Fax: (202) 401-2347



The largest marker in the state map represents the largest facility for on-site releases in the state of Florida. All markers are proportionally-sized to represent the on-site releases at each facility within this state.

#### State/TRI Data<sup>†</sup>

| Population       |                     |                 | 14,915,980 |
|------------------|---------------------|-----------------|------------|
| Square Miles     |                     |                 | 53,997     |
| Total Facilities |                     |                 | 603        |
| Total Forms      |                     |                 | 1,763      |
| Form As          |                     |                 | 319        |
|                  | Original Industries | Nazo Industrias | Total      |

|                                    | Original Industries | New Industries | Total         |
|------------------------------------|---------------------|----------------|---------------|
| National Rank for Total On- and C  | Off-site Releases*  |                |               |
| Rank                               | 11                  | 13             | 13            |
| Pounds                             | 77,945,363          | 69,004,865     | 146,950,228   |
| National Rank for Total On-site Re | eleases**           |                |               |
| Rank                               | 8                   | 12             | 11            |
| Pounds                             | 75,991,454          | 66,458,514     | 142,449,968   |
| National Rank for Total Releases v | vithin State***     |                |               |
| Rank                               | 11                  | 13             | 13            |
| Pounds                             | 77,415,767          | 67,652,995     | 145,068,762   |
| National Rank for Production-rela  | ted Waste Managed   |                |               |
| Rank                               | 5                   | 15             | 9             |
| Pounds                             | 941,575,807         | 96,644,576     | 1,038,220,383 |

- Includes transfers out-of-state for disposal. Excludes transfer amounts sent for disposal to other TRI facilities reporting that amount released on-site.
- \*\* Includes amounts released at the facility. Excludes amounts transferred to other sites.
- \*\*\* Excludes transfers for disposal sent out-of-state or sent to other TRI facilities within the state reporting that amount released on-site.

<sup>†</sup>Three IMC-Agrico plants in Mulberry, Florida submitted 1998 forms too late for inclusion in this report. They reported a total of 11.5 million pounds of on-site releases which changes the state national rankings as follows. Rank for total on- and off-site releases for original industries changes from 11 to 10 and for total industries from 13 to 12. Rank for total industries from 13 to 12. Rank for total industries from 13 to 12.

## On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Original Industries)<sup>†</sup>

|           |  |           | On-site    | Releases    |             | Off-site Releases |             | Off-s       | site Transfers to Disp | osal        |
|-----------|--|-----------|------------|-------------|-------------|-------------------|-------------|-------------|------------------------|-------------|
|           |  |           | Surface    |             | On-site     | Transfers         | Total       | Transferred | Transferred            | Transferred |
|           |  | Air       | Water      | Underground | Releases to | Off-site to       | Releases in | Into        | Within                 | Out of      |
| CAS       |  | Emissions | Discharges | Injection   | Land        | Disposal*         | the State** | State       | State                  | State       |
| Number    | Chemical                                     | Pounds    | Pounds     | Pounds      | Pounds      | Pounds            | Pounds      | Pounds      | Pounds                 | Pounds      |
| _         | Nitrate compounds                            | 77,273    | 1,149,060  | 18,558,935  | 102,593     | 408,025           | 20,295,886  | 0           | 391,041                | 16,984      |
| 7664-38-2 | Phosphoric acid                              | 8,960     | 53,610     | 5           | 10,694,793  | 0                 | 10,757,368  | 0           | 0                      | 0           |
| 67-56-1   | Methanol                                     | 8,607,023 | 93,200     | 515,250     | 809,429     | 60,686            | 10,085,588  | 0           | 60,686                 | 0           |
| 7664-41-7 | Ammonia                                      | 5,971,831 | 482,522    | 335,978     | 108,590     | 70,778            | 6,969,699   | 0           | 49,981                 | 20,797      |
| 100-42-5  | Styrene                                      | 4,158,051 | 1          | 0           | 0           | 52,186            | 4,210,238   | 0           | 32,349                 | 19,837      |
| 64-18-6   | Formic acid                                  | 6,205     | 0          | 3,800,000   | 0           | 0                 | 3,806,205   | 3,036       | 0                      | 0           |
| 71-36-3   | n-Butyl alcohol                              | 431,756   | 0          | 2,004,400   | 0           | 0                 | 2,436,156   | 250         | 0                      | 0           |
| 91-20-3   | Naphthalene                                  | 1,206,499 | 5          | 0           | 1,193,700   | 0                 | 2,400,204   | 0           | 0                      | 0           |
| 108-88-3  | Toluene                                      | 1,495,825 | 0          | 0           | 2,064       | 28,893            | 1,526,782   | 351         | 20,687                 | 8,206       |
| 1717-00-6 | 1,1-Dichloro-1-fluo-<br>roethane (HCFC-141b) | 1,283,176 | 0          | 0           | 0           | 16,536            | 1,299,712   | 0           | 15,949                 | 587         |

<sup>\*</sup> Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

#### On-site and Off-site Releases for Top Ten Chemicals Ranked on Total Releases in the State (Seven New Industries)

|           |                     |            | On-site I  | Releases    |             | Off-site Releases |             | Off-s       | Off-site Transfers to Disposal |             |  |  |
|-----------|---------------------|------------|------------|-------------|-------------|-------------------|-------------|-------------|--------------------------------|-------------|--|--|
|           |                     |            | Surface    |             | On-site     | Transfers         | Total       | Transferred | Transferred                    | Transferred |  |  |
|           |                     | Air        | Water      | Underground | Releases to | Off-site to       | Releases in | Into        | Within                         | Out of      |  |  |
| CAS       |                     | Emissions  | Discharges | Injection   | Land        | Disposal*         | the State** | State       | State                          | State       |  |  |
| Number    | Chemical            | Pounds     | Pounds     | Pounds      | Pounds      | Pounds            | Pounds      | Pounds      | Pounds                         | Pounds      |  |  |
| 7647-01-0 | Hydrochloric acid   | 31,618,431 | 0          | 0           | 0           | 0                 | 31,618,431  | 0           | 0                              | 0           |  |  |
| 7664-93-9 | Sulfuric acid       | 21,045,134 | 0          | 0           | 0           | 0                 | 21,045,134  | 0           | 0                              | 0           |  |  |
| 7664-39-3 | Hydrogen fluoride   | 3,066,995  | 0          | 0           | 5,600       | 1,001             | 3,073,596   | 0           | 1,001                          | 0           |  |  |
| _         | Barium compounds    | 46,403     | 1,383      | 0           | 1,896,914   | 572,051           | 2,516,751   | 0           | 358,801                        | 213,250     |  |  |
| _         | Nickel compounds    | 90,918     | 4,267      | 0           | 1,602,312   | 139,548           | 1,837,045   | 0           | 139,298                        | 250         |  |  |
| _         | Zinc compounds      | 58,874     | 13,782     | 0           | 1,553,279   | 94,438            | 1,720,373   | 0           | 61,188                         | 33,250      |  |  |
| 50-00-0   | Formaldehyde        | 1,600,000  | 250        | 0           | 0           | 0                 | 1,600,250   | 5           | 0                              | 0           |  |  |
| _         | Manganese compounds | 8,542      | 1,035      | 0           | 1,330,973   | 145,713           | 1,486,263   | 0           | 85,463                         | 60,250      |  |  |
| _         | Lead compounds      | 7,970      | 271        | 0           | 151,962     | 1,189,091         | 1,349,294   | 0           | 277,841                        | 911,250     |  |  |
| _         | Copper compounds    | 11,722     | 24,428     | 0           | 941,266     | 108,493           | 1,085,909   | 0           | 47,243                         | 61,250      |  |  |

<sup>\*</sup> Excludes amounts transferred to other TRI facilities in the state reporting that amount released on-site.

<sup>\*\*</sup> The chemical ranking is based on the amounts in this column.

<sup>†</sup>Three IMC-Agrico plants in Mulbery, Florida submitted 1998 forms too late for inclusion in this report. They reported total releases in the state of 7,140,000 pounds of phosphoric acid, 4,129,000 pounds of ammonia and 215,000 pounds of sulfuric acid. The rank of ammonia changes from fourth to third.

<sup>\*\*</sup> The chemical ranking is based on the amounts in this column.

## On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Original Industries)

|   |           |            |             | Off-site I<br>(Transfers Off-si |              |              |            |              |              |
|---|-----------|------------|-------------|---------------------------------|--------------|--------------|------------|--------------|--------------|
|   |           |            | Underground | Injection                       | On-site Rele | ases to Land |            |              |              |
|   |           | Surface    |             |                                 | RCRA         | Other        | Total      |              |              |
|   | Air       | Water      | Class I     | Class II-V                      | Subtitle C   | On-site Land | On-site    | Transferred  | Transferred  |
|   | Emissions | Discharges | Wells       | Wells                           | Landfills    | Releases     | Releases*  | Within State | Out of State |
| Facility, City, County  | Pounds    | Pounds     | Pounds      | Pounds                          | Pounds       | Pounds       | Pounds     | Pounds       | Pounds       |
| Solutia Inc., Gonzalez, Escambia                                    | 197,061   | 1,717      | 26,937,419  | 0                               | 0            | 0            | 27,136,197 | 1,361        | 1,300        |
| PCS Phosphate — White Springs, White Springs, Hamilton              | 560,010   | 3,770      | 0           | 0                               | 0            | 6,200,000    | 6,763,780  | 0            | 0            |
| CF Ind. Inc. Plant City Phosphate Complex, Plant City, Hillsborough | 1,224,448 | 69,928     | 0           | 0                               | 0            | 2,400,000    | 3,694,376  | 0            | 0            |
| U.S. Sugar Corp. Clewiston Mill, Clewiston, Hendry                  | 1,516,800 | 0          | 0           | 0                               | 0            | 1,410,800    | 2,927,600  | 0            | 0            |
| Champion Intl. Corp., Cantonment, Escambia                          | 2,296,744 | 195,065    | 0           | 0                               | 0            | 177,000      | 2,668,809  | 266,280      | 0            |
| Farmland Hydro L.P., Bartow, Polk                                   | 830,000   | 580        | 0           | 0                               | 0            | 1,412,000    | 2,242,580  | 0            | 0            |
| U.S. Sugar Corp., Bryant Sugar House, Bryant, Palm Beach            | 969,500   | 0          | 0           | 0                               | 0            | 1,217,459    | 2,186,959  | 0            | 0            |
| Georgia-Pacific Corp., Palatka, Putnam                              | 1,962,467 | 65,702     | 0           | 0                               | 0            | 38,756       | 2,066,925  | 0            | 0            |
| Buckeye Florida L.P., Perry, Taylor                                 | 1,656,728 | 98,431     | 0           | 0                               | 0            | 141,004      | 1,896,163  | 0            | 0            |
| Jefferson Smurfit Corp., Fernandina Beach, Nassau                   | 1,477,044 | 13,184     | 0           | 0                               | 0            | 0            | 1,490,228  | 0            | 0            |

#### On- and Off-site Releases for Top Ten Facilities Ranked on Total On-site Releases in the State (Seven New Industries)

|   | On-site Releases |                                |                  |                     |                                 |                                   |                               | Off-site I<br>(Transfers Off-s |                             |
|---|------------------|--------------------------------|------------------|---------------------|---------------------------------|-----------------------------------|-------------------------------|--------------------------------|-----------------------------|
|   |                  |                                | Underground      | l Injection         | On-site Rele                    | ases to Land                      |                               |                                |                             |
|   | Air<br>Emissions | Surface<br>Water<br>Discharges | Class I<br>Wells | Class II-V<br>Wells | RCRA<br>Subtitle C<br>Landfills | Other<br>On-site Land<br>Releases | Total<br>On-site<br>Releases* | Transferred<br>Within State    | Transferred<br>Out of State |
| Facility, City, County  | Pounds           | Pounds                         | Pounds           | Pounds              | Pounds                          | Pounds                            | Pounds                        | Pounds                         | Pounds                      |
| Gulf Power Co. — Plant Crist, Pensacola, Escambia                                 | 9,275,450        | 1,621                          | 0                | 0                   | 0                               | 481,679                           | 9,758,750                     | 0                              | 0                           |
| Seminole Generating Station, Palatka, Putnam                                      | 8,386,772        | 3,582                          | 0                | 0                   | 0                               | 1,208,647                         | 9,599,001                     | 0                              | 0                           |
| Florida Power Corp., Crystal River Energy Complex, Crystal River, Citrus          | 8,440,499        | 18,900                         | 0                | 0                   | 0                               | 333,900                           | 8,793,299                     | 178                            | 0                           |
| Tampa Electric Co. — Gannon Station, Tampa, Hillsborough                          | 8,000,790        | 2,600                          | 0                | 0                   | 0                               | 128,109                           | 8,131,499                     | 0                              | 0                           |
| St. Johns River Power Park Northside Generating Statin, Jacksonville,<br>Duval    | 6,152,110        | 8,650                          | 0                | 0                   | 0                               | 1,269,410                         | 7,430,170                     | 1,020                          | 2,010                       |
| Stanton Energy Complex, Orlando, Orange   | 251,710          | 0                              | 0                | 0                   | 0                               | 3,578,650                         | 3,830,360                     | 788,005                        | 0                           |
| Gulf Power Co. — Plant Lansing Smith, Southport, Bay                              | 3,279,421        | 2,011                          | 0                | 0                   | 0                               | 312,862                           | 3,594,294                     | 0                              | 0                           |
| Tampa Electric Co. — Big Bend Station, Apollo Beach, Hillsborough                 | 3,244,564        | 10,000                         | 0                | 0                   | 0                               | 131,587                           | 3,386,151                     | 0                              | 0                           |
| Gainesville Regional Utilities Deerhaven Generating Station, Gainesville, Alachua | 2,072,068        | 11                             | 0                | 0                   | 0                               | 5,300                             | 2,077,379                     | 194                            | 0                           |
| Indian River Power Plant, Titusville, Brevard                                     | 1,979,350        | 17,755                         | 0                | 0                   | 0                               | 0                                 | 1,997,105                     | 0                              | 0                           |

<sup>\*</sup>The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

<sup>\*</sup>The facility ranking is based on the amounts in this column; these quantities exclude transfers out of state.

†Three IMC-Agrico plants in Mulbery, Florida submitted 1998 forms too late for inclusion in this report. The New Wales plant reported 4,149,100 pounds, the Nichols Plant reported 3,671,340 pounds and the South Pierce plant reported 3,664,000 pounds of total on-site releases. They rank third, fifth and sixth in the state.

## Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Original Industries)

| Facility, City, County  | Recycled<br>On-site<br>Pounds | Recycled<br>Off-site<br>Pounds | Energy<br>Recovery<br>On-site<br>Pounds | Energy<br>Recovery<br>Off-site<br>Pounds | Treated On-site Pounds | Treated<br>Off-site<br>Pounds | Quantity<br>Released On-<br>and Off-site*<br>Pounds | Total Production- related Waste Managed Pounds | Total Non-<br>Production-<br>related Waste<br>Managed<br>Pounds |
|---|-------------------------------|--------------------------------|---|--|------------------------|-------------------------------|---|--|---|
| Solutia Inc., Gonzalez, Escambia                                    | 46,000                        | 128,000                        | 1,326,500                               | 0  | 16,000,020             | 0                             | 27,133,460  | 44,633,980                                     | 980   |
| PCS Phosphate — White Springs, White Springs, Hamilton              | 0                             | 0                              | 0                                       | 0  | 2,400                  | 0                             | 6,760,010   | 6,762,410                                      | 0   |
| CF Ind. Inc. Plant City Phosphate Complex, Plant City, Hillsborough | 0                             | 0                              | 0                                       | 0  | 0                      | 0                             | 3,955,000   | 3,955,000                                      | 786   |
| Champion Intl. Corp., Cantonment, Escambia                          | 0                             | 0                              | 1,662,000                               | 0  | 9,789,000              | 0                             | 2,783,080   | 14,234,080                                     | 0   |
| Farmland Hydro L.P., Bartow, Polk                                   | 0                             | 0                              | 0                                       | 0  | 0                      | 0                             | 2,240,000   | 2,240,000                                      | 0   |
| Georgia-Pacific Corp., Palatka, Putnam                              | 0                             | 0                              | 0                                       | 0  | 11,374,700             | 0                             | 2,028,580   | 13,403,280                                     | 0   |
| Buckeye Florida L.P., Perry, Taylor                                 | 0                             | 0                              | 1,730,400                               | 0  | 14,631,461             | 0                             | 1,983,880   | 18,345,741                                     | 0   |
| Jefferson Smurfit Corp., Fernandina Beach, Nassau                   | 0                             | 0                              | 41,661                                  | 0  | 9,466,159              | 0                             | 1,574,158   | 11,081,978                                     | 0   |
| U.S. Sugar Corp. Clewiston Mill, Clewiston, Hendry                  | 0                             | 0                              | 0                                       | 0  | 0                      | 0                             | 1,516,800   | 1,516,800                                      | 0   |
| Rayonier Inc. Fernandina Pulp Div., Fernandina Beach, Nassau        | 0                             | 0                              | 2,108,990                               | 0  | 4,160,900              | 0                             | 1,262,910   | 7,532,800                                      | 0   |

#### Total Production-related Waste for Top Ten Facilities Ranked on Quantity Released On- and Off-site (Seven New Industries)

| Facility, City, County   | Recycled<br>On-site<br>Pounds | Recycled<br>Off-site<br>Pounds | Energy<br>Recovery<br>On-site<br>Pounds | Energy<br>Recovery<br>Off-site<br>Pounds | Treated<br>On-site<br>Pounds | Treated<br>Off-site<br>Pounds | Quantity<br>Released On-<br>and Off-site*<br>Pounds | Total Production- related Waste Managed Pounds | Total Non-<br>Production-<br>related Waste<br>Managed<br>Pounds |
|--|-------------------------------|--------------------------------|---|--|------------------------------|-------------------------------|---|--|---|
| Gulf Power Co. — Plant Crist, Pensacola, Escambia                                    | 0                             | 0                              | 0                                       | 0  | 0                            | 0                             | 9,758,750   | 9,758,750                                      | 0   |
| Seminole Generating Station, Palatka, Putnam   | 0                             | 0                              | 0                                       | 0  | 6,949,306                    | 0                             | 9,599,001   | 16,548,307                                     | 0   |
| Florida Power Corp., Crystal River Energy Complex, Crystal River, Citrus             | 0                             | 0                              | 0                                       | 0  | 1,300,000                    | 0                             | 8,793,300   | 10,093,300                                     | 0   |
| Tampa Electric Co. — Gannon Station, Tampa, Hillsborough                             | 0                             | 49                             | 0                                       | 0  | 2,960,000                    | 0                             | 8,131,498   | 11,091,547                                     | 2   |
| St. Johns River Power Park Northside Generating Statin, Jacksonville, Duval          | 0                             | 0                              | 0                                       | 0  | 4,379,600                    | 0                             | 7,399,500   | 11,779,100                                     | 15  |
| Stanton Energy Complex, Orlando, Orange  | 0                             | 0                              | 0                                       | 0  | 5,700,000                    | 0                             | 3,828,380   | 9,528,380                                      | 0   |
| Gulf Power Co. — Plant Lansing Smith, Southport, Bay                                 | 0                             | 0                              | 0                                       | 0  | 0                            | 0                             | 3,594,294   | 3,594,294                                      | 0   |
| Tampa Electric Co. — Big Bend Station, Apollo Beach, Hillsborough                    | 0                             | 10                             | 0                                       | 0  | 0                            | 0                             | 3,386,151   | 3,386,161                                      | 0   |
| Gainesville Regional Utilities Deerhaven Generating Station, Gainesville,<br>Alachua | 0                             | 0                              | 0                                       | 0  | 84,000                       | 0                             | 2,077,600   | 2,161,600                                      | 0   |
| Indian River Power Plant, Titusville, Brevard  | 0                             | 0                              | 0                                       | 0  | 0                            | 0                             | 1,980,100   | 1,980,100                                      | 0   |

<sup>\*</sup>The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases.

<sup>\*</sup>The facility ranking is based on the amounts in this column; these quantities exclude non-production-related releases..

†Three IMC-Agrico plants in Mulberry, Florida submitted 1998 forms too late for inclusion in this report. The New Wales plant reported 4,150,000 pounds, the South Pierce plant reported 3,664,000 pounds and the Nichols Plant reported 3,661,000 pounds of quantity released on- and off-site. They rank third, fifth and sixth in the state.